

MLS Laboratory Update: Call for Cases and Isolates of Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA)

October 28, 2022

Purpose of this Message:

To provide awareness to MLS laboratories about a potential multistate cluster of Verona integron-encoded metallo-beta-lactamase-producing carbapenem-resistant *Pseudomonas aeruginosa* (VIM-CRPA) that is being investigated nationally as a potential outbreak. Minnesota Department of Health (MDH) requests that laboratories review culture and susceptibility data for the period January 1, 2022, to present to identify *P. aeruginosa* isolates meeting the criteria below. Previously unreported isolates of CRPA, and new isolates meeting these criteria, should be submitted to the MDH Public Health Laboratory (MDH-PHL) for carbapenemase testing if possible.

Action Item:

Please send previously unreported isolates of CRPA from any specimen source, since January 1, 2022, to MDH-PHL. Until further notice, please also submit newly detected CRPA isolates (as defined below) that meet criteria below.

Background:

The Centers for Disease Control and Prevention (CDC) is investigating a multistate cluster of VIM-producing CRPA. All isolates in the cluster are closely related based on whole genome sequencing (WGS) analysis. Currently, two isolates of VIM-CRPA have been reported in Minnesota, with WGS results pending. One isolate was reported in January with a second reported in early October 2022.

Request to MLS Laboratories:

MDH asks that laboratories review culture and susceptibility data from January 1, 2022, to present, to identify unreported CRPA isolates. Please send all available isolates of CRPA not previously submitted to MDH-PHL. Do not send serial isolates on the same patient unless there is a new positive carbapenemase test or the AST profile is markedly different. We also ask that laboratories submit new CRPA clinical isolates. Although CRPA is not reportable statewide, isolates can be voluntarily submitted to MDH-PHL for carbapenemase testing at any time, even outside of this call for isolates.

Specifically, MDH-PHL requests submission of *P. aeruginosa* isolates cultured from any anatomic site meeting the following criteria:

- Resistant (MIC ≥ 8 $\mu\text{g}/\text{mL}$ or zone diameter < 15 mm) to imipenem, meropenem, or doripenem per current Clinical and Laboratory Standards Institute (CLSI) M100 standards.
- AND at least one of the following:
 - Carbapenemase production detected by a recognized method (e.g., CarbaNP, mCIM, PCR) OR

- Nonsusceptible (i.e., intermediate or resistant, MIC $\geq 16\mu\text{g/ml}$ or zone diameter $< 15\text{ mm}$) to cefepime or ceftazidime.

To report, please call MDH at 651-201-5414 and ask to report a case of carbapenem-resistant *Pseudomonas aeruginosa*.

Additional Information:

Reminder: All carbapenemase-producing organisms (CPOs), regardless of organism identified (e.g., CRE, CRAB, CRPA), are reportable to MDH within one working day.

CRPA can be transmitted from person to person, often via the hands of healthcare personnel or through contaminated medical equipment. For more information, please see [CDC, Pseudomonas aeruginosa in Healthcare Settings \(https://www.cdc.gov/hai/organisms/pseudomonas.html\)](https://www.cdc.gov/hai/organisms/pseudomonas.html).

Questions: Please contact:

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Thank you for your support in investigating this multistate cluster,

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To obtain this information in a different format, call: 651-201-5200.